

REMARKS

This Amendment cancels claim 64, amends claims 68 and 69, and adds claim 79.

Claims 50

New claim 50 recites coils wound about a ring-shaped core. A flange overlies a surface of the core in-between two adjacent coil legs. A rotatable magnet has a pole face surface with north and south pole faces. The pole face surface and the flange are adjacent and facing each other such that flux lines can extend from the poles through the flange to the core.

Claim 50 is not disclosed by the cited references, U.S. Patent No. 4,731,554 to Hall, U.S. Patent No. 4,724,368 to Andrews, and U.S. Patent No. 4,701,656 to Fawzy. This is explained as follows for each reference individually.

Hall does not disclose the claimed flange overlying the core, much less the claimed configuration the flange has with respect to the pole face surface.

Andrews does have a flange 28 and a magnet 32, 34 with a pole face surface. However, his flange and his pole face surface are not, as claimed, facing each other. Furthermore, his pole face surface is not located such that flux lines can extend, as claimed, from the poles through the flange to the core.

Similarly, the pole face surfaces of Fawzy's magnets 16, 17 are not, as claimed, adjacent and facing a flange that overlies the core. Furthermore, Fawzy's pole face surfaces are not located such that flux lines can extend, as claimed, from the poles through a flange to the core.

Claim 50 is therefore patentable over the cited prior art.

Claims 51-59

Claims 51-59 depend from claim 50. The limitations that they add to claim 50 distinguish them further from the prior art. Claims 51-59 are therefore also patentable.

For example, claim 58 includes all of the limitations of claim 50, which is patentable as explained above. For that reason alone, claim 58 is patentable. However, claim 58 has the added limitation of a mounting flange projecting perpendicularly from a bridging flange to mount the core in place. Such a mounting flange is not suggested by any of the references. This added limitation thus distinguishes claim 58 further from the prior art.

Claim 60

Claim 60 recites a flange having opposite first and second surfaces. The first flange surface overlies a first core surface in-between two adjacent coil legs. The second flange surface and adjacent coil legs jointly define a flat outer surface. A magnet surface and the first flange surface are adjacent and facing each other such that flux lines can extend from the magnet surface through the flange to the core.

Hall does not disclose or suggest the claimed flange overlying the core, much less the other claimed features relating to the flange.

Andrews does not disclose or suggest the claimed flat outer surface defined jointly by the flange surface and the adjacent coil legs. Moreover, Andrews' pole faces and flanges 28 do not, as claimed, face each other. Accordingly, Andrews' flux lines do not extend, as claimed, from the magnet surface through the flange to the core.

Similarly, Fawzy does not disclose or suggest the claimed flat outer surface defined jointly by the flange surface and the adjacent coil legs. Furthermore, Fawzy's magnet surfaces are not, as claimed, adjacent and facing a flange overlying the core.

Claim 60 is therefore patentable over the cited prior art.

Claims 61-69

Claims 61-69 depend from claim 60. The limitations that they add to claim 60 distinguish them further from the prior art. Claims 61-69 are therefore also patentable.

For example, claim 61 includes all of the limitations of claim 60, which is patentable as explained above. For that reason alone, claim 61 is patentable. However, claim 61 has the added limitation of the flange thickness being approximately equal to a bundle thickness of adjacent coil legs. This is not suggested by any of the references. This added limitation thus distinguishes claim 61 further from the prior art.

Also, for example, claim 69 includes all of the limitations of claim 60, which is patentable as explained above. Moreover, claim 58 has the added limitation of a mounting flange projecting perpendicularly from a bridging flange to mount the core in place. Such a mounting flange is not suggested by any of the references. This added limitation distinguishes claim 69 further from the prior art.

Claim 70

Claim 70 recites a bracket having first and second side flanges overlying first and second opposite surfaces of the core. The bracket further has a bridging flange extending from the first side flange to the second side flange and overlying an end surface of the core. The bracket is configured to mount the core in place. A magnet surface and the first flange are adjacent and facing each other such that flux lines can extend from the magnet surface through the first flange to the core.

Hall does not disclose or suggest any of the claimed flanges, much less their claimed use in mounting the core in place.

Andrews does not disclose the claimed bridging flange, much less its claimed use in mounting the core in place. Andrews further does not disclose a magnet surface and a side flange being, as claimed, adjacent and facing each other.

Similarly, Fawzy does not suggest a bracket used to mount the core in place as claimed. Fawzy further does not disclose a magnet surface and a side flange adjacent and facing each other as claimed.

Claim 70 is therefore patentable over the cited prior art.

Claims 71-76

Claims 71-76 depend from claim 70. The limitations that they add to claim 70 distinguish them further from the prior art. Claims 71-76 are therefore also patentable.

Claim 77

Claim 77 recites a ring-shaped core encircling an axis and having a radially-extending surface. A flange overlies the radially-extending core surface. A radially-extending magnet surface and the radially-extending core surface face each other.

Hall lacks the claimed flange. Hall further lacks a radially-extending magnet surface and a radially-extending core surface facing each other as claimed.

Similarly, both Andrews and Fawzy lack a radially-extending magnet surface and a radially-extending core surface facing each other as claimed.

Therefore, claim 77 is patentable over the prior art.

Claim 78

Claim 78 recites a flange having opposite first and second surfaces. The first flange surface overlies the core surface in-between two adjacent coils. The second flange surface and the adjacent coils jointly define a flat outer surface.

Hall does not disclose or suggest the claimed flange, much less the claimed flat outer surface defined by the flange surface and the adjacent coil.

Similarly, neither Andrews nor Fawzy disclose or suggest the claimed flat outer surface defined by the flange surface and the adjacent coil.

Therefore, claim 78 is patentable over the prior art.

Claim 79

Claim 79 recites a non-magnetically permeable flange extending from one adjacent coil to the other. A magnet has a surface located such that the magnet surface and the flange face each other, such that flux lines can extend from the magnet surface through the flange to the core.

Hall lacks the claimed flange and the limitations relating to the flange.

Andrews lacks a magnet surface and flange that, as claimed, face each other. He therefore also lacks flux lines that extend, as claimed, from the magnet surface through the flange to the core.

Fawzy lacks the claimed non-magnetically permeable flange extending from one adjacent coil to the other. He therefore also lacks the other limitations relating to the flange.

Therefore, claim 79 is patentable over the prior art.

The application should now be in condition for allowance, and allowance is requested.

Respectfully Submitted,

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